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EXAMINER	
YUEN, KAN	

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/775,410

Applicant(s)

LEGAULT ET AL.

Examiner

Kan Yuen

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-28, 31-41, 45-57 and 59-69 is/are rejected.
- 7) ☒ Claim(s) 14, 29, 30, 42-44 and 58 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Detailed Action

Claim Objections

1. Claims 20, 22 are objected to because of the following informalities:

In claim 20, the term "such that" is not a positive limitation. It's unclear whether the limitation after the term should be considered or not. Applicant is suggested to correct this issue in rest of the claims.

In claim 22, abbreviated terms should be spelled out. Applicant is suggested to correct this issue in rest of the claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 64-69 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 64-69 lack the proper preamble for a computer readable medium claim. This subject matter is not limited to that which falls within a statutory category of invention because it is not limited to a process, machine, manufacture, or a composition of matter. Correction is required. An example of an acceptable preamble for a computer type claims is "A computer readable medium

encoded with a computer executable instructions, the instructions comprising". For further information on statutory computer type claims, see MPEP section 2100.

Claim Rejections - 35 USC § 103

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4, 7-9, 12, 15-28, 31-41, 45, 48, 51-53, 56, 59-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang (Pub No.: 2003/0231648), in view of Milito (Pat No.: 5596576).

For claim 1, Tang disclosed the method of a traffic controller (Tang fig. 1, paragraphs 0022, 0023). The token bucket controller regulates the flow of data; and a token/leaky bucket having a capacity corresponding to a maximum number of tokens that can be stored in the token/leaky bucket (Tang fig. 1, paragraphs 0022, 0023). The

token bucket 140 includes parameters (r, b) , wherein b is the token bucket size that indicates maximum number of token that can be stored in the bucket; wherein, in response to a data transmission request, the traffic controller determines whether there is sufficient capacity within the token/leaky bucket to process the request and, if so, allows the data to be transmitted over the access network at a rate of up to a peak transmission rate and deposits tokens into the token/leaky bucket to reflect the transmission (Tang fig. 1, paragraphs 0022, 0023). Data packet that has arrived will be released at any rate or max rate, when there are sufficient tokens in the token bucket. For each particular number of bytes released to the network, one token is used and removed from token bucket 140 to reflect the transmission.

However, Tang did not disclose the method of wherein tokens escape from the token/leaky bucket at a sustained rate which is related to the quotient of a usage cap and a usage period. Milito from the same or similar fields of endeavor teaches the method of wherein tokens escape from the token/leaky bucket at a sustained rate which is related to the quotient of a usage cap and a usage period (Milito column 7, lines 45-60, fig. 6). As shown in the same fig. there is overflow bank O1-On which receives extra tokens from B1-Bn at a contractual rate. The overflow bank is the token bucket. The contractual rate is the sustained rate, wherein the contractual rate is consisting of the capacity/time. Thus, It would have been obvious to the person of ordinary skill in the art at the time of the invention to use the method as taught by Milito in the network of Tang. The motivation for using the method as taught by Milito in the network of Tang being that it provides automated filtering services in the network.

Regarding claim 4, Tang disclosed the method of additional tokens are periodically withdrawn from the token/leaky bucket (Tang paragraphs 0022, 0023). Tokens are used and removed periodically when the packet sizes are accommodated.

Regarding claim 7, Tang disclosed the method of a token generator that periodically generates a first number of tokens corresponding to a usage cap for the subscribers over a usage period (Tang fig. 1, paragraphs 0022, 0023). As shown in fig. 1, the token bucket 140 periodically receives tokens generated by the generator 145; wherein, if a sufficient number of tokens are present in the token bucket, data is allowed to be transmitted over the access network at a rate of up to a peak transmission rate and tokens are removed from the token bucket to reflect the transmission (Tang fig. 1, paragraphs 0022, 0023). Data packet that has arrived will be released at any rate or max rate, when there are sufficient tokens in the token bucket. For each particular number of bytes released to the network, one token is used and removed from token bucket 140 to reflect the transmission.

However, Tang did not disclose the method of a leaky bucket into which the token generator periodically deposits tokens, wherein the size of the leaky bucket corresponds to the usage cap and a token bucket into which the leaky bucket deposits tokens at a sustained rate, wherein the sustained rate is related to the quotient of the usage cap and the usage period. Milito disclosed the method of a leaky bucket into which the token generator periodically deposits tokens, wherein the size of the leaky bucket corresponds to the usage cap (Milito column 7, lines 45-60, fig. 6). As shown in fig. 6, there are B1-Bn where each bank represent a leaky bucket. Each class of bank

receives a stream of tokens at a contractual rate; and a token bucket into which the leaky bucket deposits tokens at a sustained rate, wherein the sustained rate is related to the quotient of the usage cap and the usage period (Milito column 7, lines 45-60, fig. 6). As shown in the same fig. there is overflow bank O1-On which receives extra tokens from B1-Bn at a contractual rate. The overflow bank is the token bucket. The contractual rate is the sustained rate, wherein the contractual rate is consisting of the capacity/time.

Regarding claim 8, Tang disclosed the method of the first number of tokens is generated and deposited into the leaky bucket (Tang fig. 1, paragraphs 0022, 0023). As shown in fig. 1, the token bucket 140 periodically receives tokens generated by the generator 145;

Regarding claim 9, Tang disclosed the method of a number of tokens smaller than the first number of tokens is generated and deposited into the leaky bucket (Tang fig. 1, paragraphs 0022, 0023).

Regarding claim 12, Tang disclosed the method of additional tokens are periodically generated and deposited into the leaky bucket and/or the token bucket (Tang fig. 1, paragraphs 0022, 0023).

Regarding claim 15, Tang disclosed the method of a traffic control element (Tang fig. 1, paragraphs 0022, 0023). The token bucket controller regulates the flow of data; and wherein, in response to a data transmission request, the traffic control element checks the number of tokens within the token bucket and, if a selected condition is satisfied, allows the data to be transmitted over the access network at a rate of up to a peak transmission rate and adjusts the number of tokens in the token bucket to reflect

the transmission (Tang fig. 1, paragraphs 0022-0024). Data packet that has arrived will be released at any rate or max rate, when there are sufficient tokens in the token bucket. For each particular number of bytes released to the network, one token is used and removed from token bucket 140 to reflect the transmission. Wherein determining sufficient tokens in the bucket, the system has a counter to determine the number of token.

However Tang did not disclose the method of a leaky bucket configured to hold tokens, which leak out of the leaky bucket at a sustained rate which is related to the quotient of a usage cap and a usage period, and a token bucket configured to hold tokens. Milito disclosed the method of a leaky bucket configured to hold tokens, which leak out of the leaky bucket at a sustained rate which is related to the quotient of a usage cap and a usage period, and a token bucket configured to hold tokens (Milito column 7, lines 45-60, fig. 6). As shown in fig. 6, there are B1-Bn where each bank represent a leaky bucket. Each class of bank receives a stream of tokens at a contractual rate. As shown in the same fig. there is overflow bank O1-On which receives extra tokens from B1-Bn at a contractual rate. The overflow bank is the token bucket. The contractual rate is the sustained rate, wherein the contractual rate is consisting of the capacity/time.

Regarding claim 16, Milito disclosed the method of the leaky bucket and the token bucket comprise the same bucket (Milito column 7, lines 45-60, fig. 6).

Regarding claim 17, Milito disclosed the method of the leaky bucket and the token bucket comprise separate buckets (Milito column 7, lines 45-60, fig. 6).

Regarding claim 18, Tang disclosed the method of tokens are deposited into the token bucket when data is transmitted and the selected condition is that the token bucket has sufficient capacity to accommodate the number of tokens corresponding to the transmission request (Tang fig. 1, paragraphs 0022, 0023).

Regarding claim 19, Tang disclosed the method of tokens are withdrawn from the token bucket when data is transmitted and the selected condition is that the token bucket has enough tokens to process the transmission request (Tang fig. 1, paragraphs 0022, 0023).

Regarding claim 20, Tang disclosed the method of wherein the service provider equipment regulates the rate at which the subscribers can send or receive data over the access network such that the subscribers do not exceed a selected usage cap over a given usage period (Tang fig. 1, paragraphs 0022, 0023). The token bucket controller regulates the flow of data. Milito from the same or similar fields of endeavor teaches the method of service provider equipment coupled to a telecommunications network (Milito fig. 5, column 1, lines 10-20). As shown in fig. 5, the PSAC 20 is the service provider equipment, and the resources can be shared with telecommunication network; and a plurality of communication links coupled to the service provider equipment (Milito fig. 5, column 1, lines 10-20). There are segments a,b,z connecting the PSAC 20, wherein each segment corresponding to a user; wherein a plurality of subscribers can gain access to the telecommunications network through the access network (column 7, lines 30-67). Each PSAC 20 controls user access to shared network resource 40.

Regarding claims 21, 32 Tang disclosed the method of the telecommunications network comprises the Internet (Tang fig. 1, 0003).

Regarding claims 22, 33 Milito disclosed the method of the service provider equipment comprises a DSLAM, a CMTS, and/or an edge router (Milito fig. 5, column 1, lines 10-20). As shown in fig. 5, the PSAC 20 is the router.

Regarding claims 23, 34 Tang disclosed the method of the communication links comprise twisted pair, fiber optic cable, and/or coaxial cable (Tang fig. 1, 0021).

Regarding claim 24, 35 Milito disclosed the method of the communication links comprise wireless communication paths (Milito, column 7, lines 1-67).

Regarding claims 25, 36, 40 Tang disclosed the method of the usage cap and the usage period are selected by a service provider (Tang fig. 1, 0022-0024).

Regarding claim 41, Tang disclosed the method of the maximum burst allocation value is a selected percentage of the usage cap (Tang fig. 1, 0022-0024).

Regarding claims 26, 37 Tang disclosed the method of the usage period is a day, a week, a month, a quarter, or a year (Tang fig. 1, 0022-0024).

Regarding claims 27, 38 Milito disclosed the method of the subscribers gain access to the telecommunications network using one or more computers, personal digital assistants, and/or cellular telephones (Milito fig. 5, column 1, lines 10-20). As shown in fig. 5, the PSAC 20 is the router.

Regarding claim 28, Tang disclosed the method of the subscribers can send or receive data over the access network at a rate of at least a sustained transmission rate,

which is determined at least in part by dividing the usage cap by the length of the usage period (Tang fig. 1, 0022-0024).

Regarding claim 31, Tang disclosed the method of a burst counter having a maximum burst allocation value, wherein the value of the burst counter decreases at a rate greater than or equal to a sustained rate that is based at least in part on the quotient of a selected usage cap and a corresponding usage period (Tang fig. 1, paragraphs 0024). The token bucket 140 comprises a counter that decrement as a constant rate with a maximum count. The counter is decremented for each data packet that is released. The counter decrease at a rate that is equal to the rate of data being release or the sustained rate; and wherein, when a transmission request is received, the service provider equipment determines whether the sum of the burst counter value and the size of the transmission request is less than the maximum burst allocation value and, if so, processes the transmission request and increases the value of the burst counter to reflect the transmission (Tang fig. 1, paragraphs 0022-0024). Data packet that has arrived will be released at any rate or max rate, when there are sufficient tokens in the token bucket. For each particular number of bytes released to the network, one token is used and removed from token bucket 140 to reflect the transmission. Although the counter decreases after request is executed, however the counter can be set to increment each time a request is executed.

Milito disclosed the method of service provider equipment coupled to a telecommunications network (Milito fig. 5, column 1, lines 10-20). As shown in fig. 5, the PSAC 20 is the service provider equipment, and the resources can be shared with

telecommunication network and a plurality of communication links coupled to the service provider equipment (Milito fig. 5, column 1, lines 10-20). There are segments a,b,z connecting the PSAC 20, wherein each segment corresponding to a user; wherein the communication links enable a plurality of subscribers to gain access to the telecommunications network through the access network (column 7, lines 30-67). Each PSAC 20 controls user access to shared network resource 40; and

Regarding claim 39, Tang disclosed the method of providing a burst counter having a maximum burst allocation value (Tang fig. 1, paragraphs 0024). The token bucket 140 comprises a counter that decrement as a constant rate with a maximum count b; decreasing the value of the burst counter at a rate greater than or equal to a sustained rate, wherein the sustained rate is based at least in part on the quotient of the usage cap and the usage period (Tang fig. 1, paragraphs 0024). The counter is decremented for each data packet that is released. The counter decrease at a rate that is equal to the rate of data being release or the sustained rate; and when a transmission request is received, determining whether the sum of the burst counter value and the size of the transmission request is less than the maximum burst allocation value and, if so, processing the transmission request and increasing the value of the burst counter to reflect the transmission (Tang fig. 1, paragraphs 0022-0024). Data packet that has arrived will be released at any rate or max rate, when there are sufficient tokens in the token bucket. For each particular number of bytes released to the network, one token is used and removed from token bucket 140 to reflect the transmission. Although the counter decreases after request is executed, however the counter can be set to

increment each time a request is executed. Milito disclosed the method of referencing a selected usage cap for a given usage period (Milito column 7, lines 45-60, fig. 6). As shown in the same fig. there is overflow bank O1-On which receives extra tokens from B1-Bn at a contractual rate. The overflow bank is the token bucket. The contractual rate is the selected usage cap for a given usage period, wherein the contractual rate is consisting of the capacity/time.

Regarding claim 45, Tang disclosed the method of providing a token/leaky bucket having a capacity corresponding to a maximum number of tokens that can be stored in the token/leaky bucket (Tang fig. 1, paragraphs 0023-0024). The token bucket 140 includes parameters (r, b) , where r is the token bucket rate, and b is the bucket size, wherein b is the value that can hold max number of token; when a transmission request is received, determining whether there is sufficient capacity within the token/leaky bucket to process the request and, if so, transmitting the data and depositing tokens into the token/leaky bucket to reflect the transmission (Tang fig. 1, paragraphs 0022, 0023). Data packet that has arrived will be released at any rate or max rate, when there are sufficient tokens in the token bucket. For each particular number of bytes released to the network, one token is used and removed from token bucket 140 to reflect the transmission. Milito disclosed the method of withdrawing tokens from the token/leaky bucket at a sustained rate which is related to the quotient of a usage cap and a usage period (Milito column 7, lines 45-60, fig. 6). As shown in the same fig. there is overflow bank O1-On which receives extra tokens from B1-Bn at a

contractual rate. The overflow bank is the token bucket. The contractual rate is the sustained rate, wherein the contractual rate is consisting of the capacity/time.

Regarding claim 48, Tang disclosed the method of additional tokens are periodically withdrawn from the token/leaky bucket (Tang paragraphs 0022, 0023). Tokens are used and removed periodically when the packet sizes are accommodated.

Regarding claim 51, Tang disclosed the method of generating a first number of tokens corresponding to a selected usage cap for the subscribers over a usage period (Tang fig. 1, paragraphs 0022, 0023). As shown in fig. 1, the token bucket 140 periodically receives tokens generated by the generator 145; when a transmission request is received, determining whether a sufficient number of tokens are present in the token bucket to process the request and, if so, transmitting the data and removing tokens from the token bucket to reflect the transmission (Tang fig. 1, paragraphs 0022, 0023). Data packet that has arrived will be released at any rate or max rate, when there are sufficient tokens in the token bucket. For each particular number of bytes released to the network, one token is used and removed from token bucket 140 to reflect the transmission. Milito disclosed the method of depositing tokens into a leaky bucket, wherein the size of the leaky bucket corresponds to the usage cap (Milito column 7, lines 45-60, fig. 6). As shown in fig. 6, there are B1-Bn where each bank represent a leaky bucket. Each class of bank receives a stream of tokens at a contractual rate; and transferring tokens from the leaky bucket to a token bucket at a sustained rate, which is related to the quotient of the selected usage cap and the usage period, such that the first number of tokens is deposited into the token bucket during the usage period (Milito

column 7, lines 45-60, fig. 6). As shown in the same fig. there is overflow bank O1-On which receives extra tokens from B1-Bn at a contractual rate. The overflow bank is the token bucket. The contractual rate is the sustained rate, wherein the contractual rate is consisting of the capacity/time.

Regarding claim 52, Tang disclosed the method of the first number of tokens is generated and deposited into the leaky bucket and/or the token bucket once during the usage period (Tang fig. 1, paragraphs 0022, 0023). As shown in fig. 1, the token bucket 140 periodically receives tokens generated by the generator 145;

Regarding claim 53, Tang disclosed the method of a number of tokens smaller than the first number of tokens is generated and deposited into the leaky bucket and/or the token bucket periodically throughout the usage period (Tang fig. 1, paragraphs 0022, 0023).

Regarding claim 56, Tang disclosed the method of additional tokens are periodically generated and deposited into the leaky bucket and/or the token bucket (Tang fig. 1, paragraphs 0022, 0023).

Regarding claim 59, Tang disclosed the method of when a transmission request is received, evaluating the number of tokens within the token bucket and, if a selected condition is satisfied, transmitting the data and adjusting the number of tokens within the token bucket to reflect the transmission (Tang fig. 1, paragraphs 0022-0024). Data packet that has arrived will be released at any rate or max rate, when there are sufficient tokens in the token bucket. For each particular number of bytes released to

the network, one token is used and removed from token bucket 140 to reflect the transmission. Wherein determining sufficient tokens in the bucket, the system has a counter to determine the number of token. Milito disclosed the method of providing a leaky bucket configured to hold tokens (Milito column 7, lines 45-60, fig. 6). As shown in fig. 6, there are B1-Bn where each bank represent a leaky bucket. Each class of bank receives a stream of tokens at a contractual rate; providing a token bucket configured to hold tokens allowing tokens to leak from the leaky bucket at a sustained rate which is related to the quotient of a usage cap and a usage period, and (Milito column 7, lines 45-60, fig. 6). As shown in the same fig. there is overflow bank O1-On which receives extra tokens from B1-Bn at a contractual rate. The overflow bank is the token bucket. The contractual rate is the sustained rate, wherein the contractual rate is consisting of the capacity/time.

Regarding claim 60, Milito disclosed the method of the leaky bucket and the token bucket comprise the same bucket (Milito column 7, lines 45-60, fig. 6).

Regarding claim 61, Milito disclosed the method of the leaky bucket and the token bucket comprises separate buckets (Milito column 7, lines 45-60, fig. 6).

Regarding claim 62, Tang disclosed the method of tokens are deposited into the token bucket when data is transmitted and the selected condition is that the token bucket has sufficient capacity to accommodate the number of tokens corresponding to the transmission request (Tang fig. 1, paragraphs 0022, 0023).

Regarding claim 63, Tang disclosed the method of tokens are withdrawn from the token bucket when data is transmitted and the selected condition is that the token

bucket has enough tokens to process the transmission request (Tang fig. 1, paragraphs 0022, 0023).

Regarding claim 64, Tang disclosed the method of providing a burst counter having a maximum burst allocation value (Tang fig. 1, paragraphs 0024). The token bucket 140 comprises a counter that decrement as a constant rate with a maximum count b ; decreasing the value of the burst counter at a rate greater than or equal to a sustained rate, wherein the sustained rate is based at least in part on the quotient of the usage cap and the usage period (Tang fig. 1, paragraphs 0024). The counter is decremented for each data packet that is released. The counter decrease at a rate that is equal to the rate of data being release or the sustained rate; and when a transmission request is received, determining whether the sum of the burst counter value and the size of the transmission request is less than the maximum burst allocation value and, if so, processing the transmission request and increasing the value of the burst counter to reflect the transmission (Tang fig. 1, paragraphs 0022-0024). Data packet that has arrived will be released at any rate or max rate, when there are sufficient tokens in the token bucket. For each particular number of bytes released to the network, one token is used and removed from token bucket 140 to reflect the transmission. Although the counter decreases after request is executed, however the counter can be set to increment each time a request is executed. Milito disclosed the method of referencing a selected usage cap for a given usage period (Milito column 7, lines 45-60, fig. 6). As shown in the same fig. there is overflow bank O1-On which receives extra tokens from B1-Bn at a contractual rate. The overflow bank is the token bucket. The contractual rate

is the selected usage cap for a given usage period, wherein the contractual rate is consisting of the capacity/time.

Regarding claim 65, Tang disclosed the method of the usage cap and the usage period are set by a service provider (Tang fig. 1, 0022-0024).

Regarding claim 66, Tang disclosed the method of the maximum burst allocation value is a selected percentage of the usage cap (Tang fig. 1, 0022-0024).

5. Claims 2, 3, 10, 11, 46, 47, 54, 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang (Pub No.: 2003/0231648), in view of Milito (Pat No.: 5596576), as applied to claim 1 above, and further in view of Wang et al. (Pub No.: 2004/0151184).

6. For claim 2, Tang and Milito both did not disclose the method of a selected number of tokens is withdrawn from the token/leaky bucket when a subscription is initiated. Wang et al. from the same or similar fields of endeavor teaches the method of a selected number of tokens is withdrawn from the token/leaky bucket when a subscription is initiated (Wang et al. paragraphs 0008-0009). A predetermined number of tokens are being removed from the bucket when the storage space is being used up. Thus, It would have been obvious to the person of ordinary skill in the art at the time of the invention to use the method as taught by Wang et al. in the network of Tang and

Milito. The motivation for using the method as taught by Wang et al. in the network of Tang and Milito being that it provides automated filtering services in the network.

Regarding claim 3, Wang et al. disclosed the method of a selected number of tokens is withdrawn the token/leaky bucket at the beginning of each usage period (Wang et al. paragraphs 0008-0009). A predetermined number of tokens are being removed from the bucket when the storage space is being used up.

Regarding claim 10, Wang et al. disclosed the method of a selected number of tokens is deposited directly into the token bucket when a subscription is initiated (Wang et al. paragraphs 0008-0009). A predetermined number of tokens are being removed from the bucket when the storage space is being used up.

Regarding claim 11, Wang et al. disclosed the method of a selected number of tokens is deposited directly into the token bucket at the beginning of each usage period (Wang et al. paragraphs 0008-0009). A predetermined number of tokens are being removed from the bucket when the storage space is being used up.

Regarding claim 46, Wang et al. disclosed the method of a selected number of tokens is withdrawn from the token/leaky bucket when a subscription is initiated (Wang et al. paragraphs 0008-0009). A predetermined number of tokens are being removed from the bucket when the storage space is being used up.

Regarding claim 47, Wang et al. disclosed the method of a selected number of tokens is withdrawn from the token/leaky bucket at the beginning of each usage period (Wang et al. paragraphs 0008-0009). A predetermined number of tokens are being removed from the bucket when the storage space is being used up.

Regarding claim 54, Wang et al. disclosed the method of a selected number of tokens is deposited directly into the token bucket when a subscription is initiated (Wang et al. paragraphs 0008-0009). A predetermined number of tokens are being removed from the bucket when the storage space is being used up.

Regarding claim 55, Wang et al. disclosed the method of a selected number of tokens is deposited directly into the token bucket at the beginning of each usage period (Wang et al. paragraphs 0008-0009). A predetermined number of tokens are being removed from the bucket when the storage space is being used up.

7. Claims 5, 6, 13, 49, 50, 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang (Pub No.: 2003/0231648), in view of Milito (Pat No.: 5596576), as applied to claim 1 above, and further in view of Laux et al. (Pub No.: 2003/0126441).

For claim 5 Tang and Milito both did not disclose the method of the number of tokens within the token/leaky bucket is brought to zero at the end of each usage period. Laux from the same or similar fields of endeavor teaches the method of the number of tokens within the token/leaky bucket is brought to zero at the end of each usage period (Laux et al. see abstract). When user switches to other service, the security tokens are released from the bucket. Thus, It would have been obvious to the person of ordinary skill in the art at the time of the invention to use the method as taught by Laux et al. in the network of Tang and Milito. The motivation for using the method as taught by Laux et al. in the network of Tang and Milito being that it increase system efficiency.

Regarding claim 6, Laux et al. disclosed the method of the number of tokens within the token/leaky bucket is not brought to zero at the end of each usage period (Laux et al. see abstract). When user switches to other service, the security tokens are released from the bucket.

Regarding claim 13, Laux et al. disclosed the method of the token bucket is emptied at the end of each usage period (Laux et al. see abstract). When user switches to other service, the security tokens are released from the bucket.

Regarding claim 49, Laux et al. disclosed the method of the number of tokens within the token/leaky bucket is brought to zero at the end of each usage period (Laux et al. see abstract). When user switches to other service, the security tokens are released from the bucket.

Regarding claim 50, Laux et al. disclosed the method of the number of tokens within the token/leaky bucket is not brought to zero at the end of each usage period (Laux et al. see abstract). When user switches to other service, the security tokens are released from the bucket.

Regarding claim 57, Laux et al. disclosed the method of the token bucket is emptied at the end of each usage period (Laux et al. see abstract). When user switches to other service, the security tokens are released from the bucket.

Allowable Subject Matter

8. Claims 14, 29-30, 42-44, 58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art failed to teach the method of tokens remaining in the token bucket at the end of a usage period rollover such that they can be used as credits toward transmission requests in future usage periods, recited in claim 14. The subscribers experience a peak transmission rate for a limited number of transmissions at the beginning of the usage period before being throttled down to the sustained transmission rate, recited in claim 29. The burst counter is allowed to reach a negative value equal to the maximum burst allocation value minus the selected usage cap, recited in claim 42. The burst counter is allowed to reach a negative value equal to the maximum burst allocation value minus the selected usage cap minus an amount of allowed rollover credit, recited in claim 43. Wherein, if the value of the burst counter is positive, then the burst counter decreases at the greater of a minimum guaranteed rate and the sustained rate, and, if the value of the burst counter is negative, then the burst counter decreases at the sustained rate, recited in claim 44. Tokens remaining in the token bucket at the end of a usage period rollover such that they can be used as credits toward transmission requests in future usage periods, recited in claim 58.

Conclusion

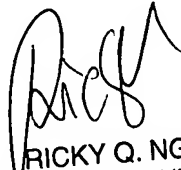
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bottiglieri et al. (Pub No.: 2003/0031131), is show system which considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kan Yuen whose telephone number is 571-270-1413. The examiner can normally be reached on Monday-Friday 10:00a.m-3:00p.m EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky O. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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KY


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